

# Austin & Rogers, P.A.

ATTORNEYS AND COUNSELORS AT LAW

WILLIAM FREDERICK AUSTIN  
(1930-2016)

TIMOTHY F. ROGERS  
RAYMON E. LARK, JR.  
RICHARD L. WHITT  
EDWARD L. EUBANKS  
W. MICHAEL DUNCAN\*

**COLUMBIA OFFICE**  
CONGAREE BUILDING  
508 HAMPTON STREET, SUITE 300  
POST OFFICE BOX 11716 (29211)  
COLUMBIA, SOUTH CAROLINA 29201  
TELEPHONE: (803) 256-4000  
FACSIMILE: (803) 252-3679  
WWW.AUSTINROGERSPA.COM

OF COUNSEL:  
JEFFERSON D. GRIFFITH, III

\* ALSO ADMITTED IN N.C.

June 1, 2017

**VIA, ELECTRONIC FILING**

The Honorable Jocelyn Boyd  
Chief Clerk and Administrator  
The Public Service Commission of South Carolina  
101 Executive Center Drive  
Columbia, South Carolina 29210

Re: • **Docket Number 2017-1-E**  
• **Surrebuttal Testimony of Timothy Daniels on Behalf of Adger Solar, LLC**

Dear Ms. Boyd:

Enclosed for filing is the Surrebuttal Testimony of Timothy Daniels on behalf of Adger Solar, LLC, Cover Sheet and Certificate of Service.

All parties of record have been served. Please notify the undersigned if you there is anything else you may need.

Respectfully Submitted,

/S/\_\_\_\_\_  
Richard L. Whitt

RLW/cas

**SURREBUTTAL TESTIMONY OF TIMOTHY DANIELS**

**ON BEHALF OF ADGER SOLAR, LLC**

**DOCKET NO. 2017-1-E**

**Q. PLEASE STATE YOUR NAME AND THE PURPOSE OF YOUR  
SURREBUTTAL TESTIMONY.**

**A.** My name is Timothy Daniels and the purpose of my Surrebuttal Testimony, is to respond to the Rebuttal Testimony of Glen A. Snider.

**Q. DO YOU AGREE WITH THE CONCLUSIONS OF MR. SNIDER'S REBUTTAL  
TESTIMONY? IF NOT, WHY?**

**A.** No. I do not agree with Witness Snider's Rebuttal Testimony, for the reasons set forth hereinbelow.

**Q. PLEASE DESCRIBE HOW YOU DISAGREE WITH MR. SNIDER'S REBUTTAL  
TESTIMONY?**

**A.** Witness Snider's Rebuttal Testimony asserts that my Testimony was incorrect in assuming that if the Company had entered into Power Purchase Agreements with utility-scale solar projects with a 15-year levelized cost of \$45.00/MWh, that that would have reduced the fuel costs for the Company. Witness Snider's conclusion is generally incorrect both in its assumption that the cost of the utility-scale solar would necessarily be as high as \$45.00/MWh, and in its assumption that the Power Purchase Agreement would necessarily include a levelized rate.

1   **Q.   PLEASE EXPLAIN.**

2   **A.**First, Witness Snider's Rebuttal Testimony only references a Power Purchase Agreement  
3       price of \$45.00/MWh, although my Testimony described the cost of utility-scale solar in  
4       the Company's South Carolina territory as being in the range of the high \$30s to high  
5       \$40s on a 15-year levelized basis. I used \$45.00/MWh, as an estimated average 15-year  
6       levelized cost of solar to demonstrate potential savings to South Carolina rate payers.  
7       Further, my Testimony referenced my Company's most recent Power Purchase  
8       Agreement, with its Shaw Creek Solar, project that contained a 20-year levelized price of  
9       approximately \$38.50/MWh. Witness Snider did not take into account the possibility that  
10      the cost of solar could be lower than \$45.00/MWh on a 15-year levelized basis, and had  
11      Witness Snider done so, he would have reached a different conclusion.

12      Second, Witness Snider's Rebuttal Testimony incorrectly assumes that a Power Purchase  
13      Agreement with a levelized rate of \$45.00 for a 15-year term would necessarily have to  
14      be structured so that it has a first-year rate of \$45.00/MWh. The practice of using  
15      levelized rates is common in the solar industry as a means of simplifying and comparing  
16      rates and costs. However, actual rate structures in Power Purchase Agreements can take  
17      a variety of forms that may include (i) time of day capacity payments (ii) on and off-peak  
18      energy pricing, and (iii) annual escalation. For example, the Shaw Creek Solar Power  
19      Purchase Agreement rate that I referenced is actually a multi-part rate that varies over  
20      time and the 20-year levelized rate that I provided is simply an estimate of what the  
21      equivalent levelized rate would be. Therefore, a Power Purchase Agreement with a 15-  
22      year levelized cost of \$45.00/MWh, could in fact, be based on a first-year rate that is  
23      quite a bit lower and that escalates over the term of the Agreement.

1   **Q.     PLEASE EXPLAIN HOW A POWER PURCHASE AGREEMENT WITH AN**  
2       **ESCALATING RATE STRUCTURE CAN PROVIDE SAVINGS FOR SOUTH**  
3       **CAROLINA RATE PAYERS?**

4   **A.**   To illustrate the impact of using an escalating rate as compared to a levelized rate in a  
5       Power Purchase Agreement, I will describe a hypothetical rate structure and potential rate  
6       payer savings using the current marginal energy cost of \$29.16/MWh provided by  
7       Witness Snider. If one assumes an annual escalation of 2%, which is approximately  
8       equivalent to the long-term average inflation rate in the United States, and a first-year  
9       rate of \$29.16/MWh for energy that would be equivalent to a 15-year levelized energy  
10      rate of approximately \$34.00/MWh. If one then assumes that the power purchase  
11      agreement has an equivalent all-in rate of \$38.50, one would only need to assume an  
12      equivalent 15-year levelized capacity avoided cost of \$4.50/MWh. Under this scenario, if  
13      the Company's actual 15-year levelized capacity avoided cost is greater than \$4.50/MWh  
14      and one assumes that the all-in equivalent levelized rate of the power purchase agreement  
15      remains at \$38.50/MWh this would result in a first-year energy price lower than the  
16      Company's current avoided energy cost of \$29.16. Although Witness Snider's Rebuttal  
17      Testimony does not provide a specific, 15-year levelized capacity avoided cost,  
18      \$4.50/MWh is considerably lower than the \$13/MWh levelized avoided capacity cost that  
19      was assumed in the \$50.00/MWh, all-in 15-year avoided cost that was assumed in the  
20      rate payer savings analysis in my Testimony.

1     **Q.     PLEASE PROVIDE A SUMMARY OF YOUR CONCLUSIONS?**

2     **A.**     Witness Snider's Rebuttal Testimony failed to identify potential South Carolina rate  
3             payer savings from the procurement of power from utility-scale solar, because it did not  
4             consider the full range of potential cost levels for utility-scale solar and it only considered  
5             a levelized rate structure. Although the Company has not provided updated 15-year  
6             avoided cost pricing that could be utilized to create a more accurate estimate of potential  
7             rate payer savings resulting from the procurement of power from utility-scale solar, and  
8             as I explained above, it is reasonable to assume that rate payer savings may be achieved  
9             through utility-scale solar procurement that utilizes escalating rate structures. Finally, it  
10            will not be possible to conclusively determine whether a utility-scale solar procurement  
11            initiative will result in rate payer savings, until such time as the Company solicits firm  
12            proposals from real utility-scale solar projects in its South Carolina territory that can be  
13            utilized to perform a detailed rate impact analysis.

14  
15    **Q.     DOES THAT CONCLUDE YOUR SURREBUTTAL TESTIMONY?**

16    **A.**     Yes.  
17

**BEFORE  
THE PUBLIC SERVICE COMMISSION  
OF SOUTH CAROLINA  
DOCKET NO. 2017-1-E**

IN RE: Annual Review of Base Rates for )  
Fuel Costs of Duke Energy )  
Progress, LLC )

**CERTIFICATE OF SERVICE**

I, Carrie A. Schurg, an employee of Austin & Rogers, P.A., certify that I have served copies of the Cover Sheet, Surrebuttal Testimony of Timothy Daniels on behalf of Adger Solar, LLC and this Certificate of Service, as indicated below, via electronic mail on June 1, 2017.

**Andrew M. Bateman,**

Email: abateman@regstaff.sc.gov

**Frank R. Ellerbe, III,**

Email: fellerbe@sowellgray.com

**Heather Shirley Smith,**

Email: Heather.smith@duke-energy.com

**J. Blanding Holman, IV,**

Email: Bholman@selcsc.org

**Jenny R. Pittman,**

Email: jpittman@regstaff.sc.gov

**Michael K. Lavanga,**

Email: mkl@smxblaw.com

**Rebecca J. Dulin,**

Email: Rebecca.Dulin@duke-energy.com

**Robert R. Smith, II**

Email: robsmith@mvalaw.com

/s/ \_\_\_\_\_  
Carrie A. Schurg

June 1, 2017  
Columbia, South Carolina